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OFFICIAL NEWSLETTER OF THE INTEGRATED PEST MANAGEMENT RESEARCH, DEVELOPMENT AND APPLICATIONS PROGRAM
2500 SHREVEPORT HIGHWAY • PINEVILLE, LOUISIANA 71360

SPB Decision-Support System Seminar Held in Texas

An update on their southern pine beetle decision-support systems computer work was presented by the Texas Forest Service and Texas A&M University Departments of Entomology and Industrial Engineering to a Landowner Advisory Board at TFS District Headquarters in Lufkin recently.

Principal emphasis was given to discussing the purpose, progress, and potential use of the SPB decision-support system being developed by Drs. R. N. Coulson, R. M. Feldman, and coworkers at Texas A&M. This computer-based system will incorporate available stand growth, economic impact, and beetle population models into a consolidated interactive program that will be made available to the Texas Forest Service. It will, in turn, be used to aid pest control specialists and resource managers in making improved short- and long-range forest and pest management decisions. The system will eventually be tested in the TFS Polk and Tyler County demonstration area, and later in other States.

Coulson emphasized that, as the system is being developed, input will be needed from potential users to ensure that

the data requirements can be met and that the final product will be both practical and useful at the decisionmaking level. Landowner Advisory Board members made several good suggestions concerning stand growth models and other aspects of the support system.

The group also had the opportunity to see a demonstration of computerized programs available on the TFS Apple III microcomputer at Lufkin and of the Mobile Dimension Saw (portable sawmill) that has been purchased for use in the two-county demonstration area.

Those attending included Darwin Foster, Temple-Eastex Forests; Irwin Grillot, Champion International; Gary Ladox, Texas Forest Service Area Forester; Robert Hersh, Kirby Forest Industries, Inc.; Johnny Sutton, Wirt Davis Estate; Bob Merrifield, Associate Director, Texas Agriculture Experiment Station; Bruce Miles, Director, Texas Forest Service; university investigators; and members of the TFS Pest Control Section and IPM Program management team.

Other board members include Herb Branch, International Paper Company; Wayne Foster, Owens-Illinois, Inc.; and Ron Gresham, St. Regis Paper Company.

Loran-C Navigation Article Highlighted in Rocky Mountain Publication

Interest in ESPRAP technology is extending far beyond the traditional pest management community borders, and a Loran-C navigation article can be cited as proof.

The article, by Chuck Dull of Southeastern Area, State & Private Forestry, appeared as the lead story in the May 1981 edition of the Resources Evaluation Newsletter, published by the Resources Evaluation Techniques Program, headquartered at the Rocky Mountain Forest and Range Experiment Station in Fort Collins, Colorado.

In the article, Dull reported that Loran-C has been used

to increase the efficiency of aerial SPB surveys, decrease the time and effort ground crews spend in locating spots, and to reduce survey costs. Survey accuracy is a universal problem in attempting accurate inventories of any natural resource and Loran-C has the potential for serving this need.

The Resources Evaluation Techniques Program, a multidisciplinary, multiagency program, is a cooperative effort of the Forest Service, Soil Conservation Service, U.S. Geological Survey, Bureau of Land Management, U.S. Fish and Wildlife Service, and the Bureau of Indian Affairs. It is responsible for considering resource classification systems, remote sensing technology, and advanced inventory and analysis methodologies. It is also responsible for developing and implementing improved, uniform resource evaluation programs for all Federal lands.

779470 First IPM Program Coordination Meeting Held in Atlanta

The mission and approach of the Integrated Pest Management Program, along with the needs of resource managers, were discussed at a recent 2-day IPM Program coordination meeting held at the Capitol Hotel in Atlanta.

Twenty-five Program-funded projects and related work supported from other sources were reviewed. Opportunities and approaches to meeting the Program's goals in 1981 and later were discussed. Program investigators left the meeting with a better understanding of their individual contribution to the overall Program's goals and the needs of pest and resource managers. Many useful contacts were also made, especially by those involved in this type of Program for the first time.

Hertel Named IPM Program Applications Coordinator

Dr. Gerry Hertel has returned to the Integrated Pest Management R&D Program as Applications Coordinator; it was announced by Dr. Robert C. Thatcher, IPM Program Manager. The appointment was effective May 31.

The move involved no relocation—simply changing hats, according to Dr. Thatcher. Prior to his reassignment—and for the past 11 months—Dr. Hertel served as Implementation Leader for the Southeastern Area, State & Private Forestry, colocated in the Program office in Pineville. Prior to that, he was Research Coordinator for the Expanded Southern Pine Beetle R&D Program, also in Pineville.

In his new capacity, Dr. Hertel will plan, coordinate, and monitor applied studies in the IPM Program. He will continue to work closely with and through State and Private Forestry and, as appropriate, with other user groups.

Dr. Hertel was born in Greenwich, Connecticut. He received his ASF from the North Dakota School of Forestry in Bottineau (1963), his BSF from the University of Montana (1965), his MF from Duke University (1968), and his Ph.D. from the University of Wisconsin (1974). He is married and has three children. Gerry joined the Forest Service in 1968 and has worked in various positions in the Southeastern Forest Experiment Station, in the Southeastern Area of S&PF, in the U.S. Department of Agriculture and in the Southern Forest Experiment Station.

"We are pleased to have Gerry on our management team," Dr. Thatcher said.

SPB Program Report Available

The Southern Pine Beetle Program Accomplishments Report (AIB No. 438) is off the press and is now available for distribution. The Report briefly highlights Program accomplishments and is well illustrated. Persons wishing to receive a copy may write to Program Manager, IPM Bark Beetle Program, 2500 Shreveport Highway, Pineville, LA 71360.

Clemson U Holds First Annual Forestry Forum

Consideration of the southern pine beetle in forest management was the focus of the first annual Clemson University Forestry Forum held at the South Carolina College of Forest and Recreation Resources recently. The event was sponsored by the University's Cooperative Extension Service.

Speakers from the USDA Forest Service, forest industry, and Clemson's Department of Forestry presented an update on the practical application of information from recent southern pine beetle research, along with an overview of one of the South's most important pests. A total of 64 foresters representing the forestry industry (35), consulting foresters (7), and various State (6) and Federal (16) agencies attended.

The agenda and speakers included:

Biology and habits of the SPB—G.D. Hertel, USDA Forest Service, State & Private Forestry; Past and current status of the SPB in South Carolina—R. L. Hedden, Clemson University; Stand risk rating—R. P. Belanger, USDA Forest Service, Southeastern Forest Experiment Station; Preventing SPB infestations—Hedden; Detection capabilities in South Carolina—J. D. Ward, USDA Forest Service, State & Private Forestry; Planning and implementing control tactics—G. N. Mason, USDA Forest Service, Southern Forest Experiment Station; and Utilizing and marketing SPB-killed timber—M. Applefield, USDA Forest Service, State & Private Forestry; W. Kendall, Canal Wood Corp.; R. Hallberg, Catawba Timber Co.; and G. D. Hertel.

Georgia Pilot 'Fell and Leave' Project Termed Successful

In the January-February 1981 issue (No. 26) of the Pest Management News, we described the Georgia Forestry Commissions' "fell and leave" pilot project. In the most recent issue of Georgia Forestry (1981:33(1):8-9), they reported the results of this evaluation.

Entomologists Terry Price and Kerry Thomas reported that nine of the ten study sites showed a net reduction in numbers of beetles produced from trees cut-and-left when compared with numbers of brood produced from standing trees. In addition to the beetle mortality, the cut-and-leave tactic disrupted beetle dispersal patterns. During the summer months, beetles apparently were unable to disperse to new areas in sufficient numbers to initiate new infestations.

Price and Thomas noted that this project was successful in large part due to landowner cooperation in Greene and Taliaferro counties. Personnel from the Department of Entomology, University of Georgia, also participated in the project.

Integrated Forest Pest Management Co-op Holds Organizational Meeting

February 26, 1981 will be a date long remembered by the southern forestry community. On that day in Gainesville, Florida, the Integrated Forest Pest Management Cooperative (IFPMC) organizational meeting was held. This cooperative is regional in scope and is a joint program of the forest industry, the USDA Forest Service (Southeastern Forest Experiment Station), and the University of Florida's School of Forest Resources and Conservation. Six companies will be members during 1981-82. These include Buckeye Cellulose Corporation, Container Corporation of America, Georgia-Pacific Corporation, International Paper Company, Owens-Illinois Incorporated, and Union Camp Corporation.

The IFPM Cooperative will focus its efforts on the current void in applied research for testing and implementing of pest management strategies in intensively managed forests. Emphasis will be on major insect and disease problems in southern forests, seed orchards, and nurseries. For further information, contact Bob Schmidt or Dr. Tom Miller, School of Forest Resources & Conservation, University of Florida, Gainesville, FL 32611.

TO THE READERS

We are interested in learning about your bark beetle experiences and letting others know through this Newsletter. Observations, training sessions, control approaches, needs, etc., would be appropriate. Send your items to Program Manager, IPM Program, 2500 Shreveport Highway, Pineville, LA 71360.

SPB Display is Exposed Across the South

In March, 1980, the Expanded Southern Pine Beetle Program, in cooperation with the Southeastern Area, State & Private Forestry, developed a southern pine beetle display for the Annual Forest Farmers meeting in Biloxi, Mississippi. After the meeting, the display was modified and offered to the State Forestry Commissions for their use. Since May, the display was used by the Mississippi Forestry Commission, Georgia Forestry Commission, and the South Carolina Cooperative Extension Service. It will be used by the Louisiana Office of Forestry and Asheville Field Office, Southeastern Area, State and Private Forestry. Information on the display can be obtained by writing the Program Manager, IPM Program, 2500 Shreveport Highway, Pineville, LA 71360.

Annosus Root Rot More Severe In SPB-Infested Trees

Research at Virginia Polytechnic Institute and State University has consistently shown a strong association between the incidence and severity of annosus root rot and southern pine beetle-infested loblolly pine growing on sandy coastal plain sites.

The incidence and severity of *Heterobasidion annosum* in SPB-infested and uninfested pines was determined in plantations and in natural, undisturbed stands of loblolly pine located in Virginia, Texas and Georgia. Sites infested with SPB less than 8 weeks were selected for study.

Average incidences of annosus root rot in the plantations were 65 and 73 percent, respectively, for the nine SPB-infested and nine control plots. For the natural stands, average incidences of annosus root rot were 24 and 13 percent, respectively, for six SPB and six control plots.

When the root systems were excavated, mean severity levels of annosus root rot in SPB and control plots in plantations were 23.1 and 10.9 respectively. Mean severity levels for annosus root rot in SPB and control plots in natural stands were 12.0 and 0.1 percent, respectively. Average percentages of roots colonized in SPB-infested and non-infested trees in the SPB plots were 54 and 11 percent, respectively.

ALEXANDER, S. A., J. M. SKELLY, R. S. WEBB, T. R. BARDINELLI, and B. BRADFORD.

1980. Association of *Heterobasidion annosum* and the southern pine beetle on loblolly pine. *Phytopathology* 70:510-513.

South Well Represented at Western Insect Work Conference

Some 12 southern entomologists, graduate students and technicians, principally from the university community, attended the 32nd annual Western Forest Insect Work Conference at Banff National Park in Banff, Alberta, Canada recently.

The theme for the conference was "Challenges for the 80's." Various panels considered such topics as some of the research challenges ahead, the land managers' needs, the effect of the Mt. St. Helens eruption on plant and animal life and whether entomologists were making any progress. Workshops dealt with a variety of topics of concern both to the research community and Federal, State and industrial users.

Attending from the south were Ron Billings, Jack Coster, John Foltz, Fred Hain, Ron Honea, Garland Mason, Evan Nebeker, Tom Payne, Fred Stephen, Bob Thatcher, and two graduate students from Mississippi State. More than 120 persons attended the three-day conference.

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OTHER PUBLICATIONS

Frazier, J. L., T. E. Nebeker, R. F. Mizell, and W. H. Calvert.
1981. Predatory behavior of the clerid beetle *Thanasimus dubius* (Coleoptera:Cleridae) on the southern pine beetle (Coleoptera:Scolytidae). *Canad. Entomol.* 113:35-43.

Hodges, J. D., W. W. Elam, and D. R. Bluhm.
1981. Influence of resin duct size and number on oleo-resin flow in the southern pines. U.S. Dep. Agric. For. Serv. Res. Note SO-266. 3 p. South. For. Exp. Stn., New Orleans, La.

MacGuidwin, A. E., G. C. Smart, Jr., and G. E. Allen.
1980. Redescription and life history of *Contorylenchus brevicornis*, a parasite of the southern pine beetle, *Dendroctonus frontalis*. *J. Nematol.* 12:207-212.

Mawby, W. D.

1980. Development of an upper echelon submodel for the southern pine beetle hierarchy. PhD. Thesis. N.C. State Univ., Raleigh. 170 p.

Paine, T. D., M. C. Birch, and P. Svihra.

1981. Niche breadth and resource partitioning by four sympatric species of bark beetles (Coleoptera:Scolytidae). *Oecologia* 48:1-6.

Schmitt, J. J.

1980. The biology, life history and description of immatures of *Scoloposcelis mississippiensis* Drake and Harris and *Lyctocoris elongatus* (Reuter), predators of pine bark beetles. M. S. Thesis. Louisiana State University, Baton Rouge. 67 p.

Somers, G. L., R. G. Oderwald, W. R. Harms, and O. G. Langdon.

1980. Predicting mortality with a Weibull distribution. *Forest Sci.* 26(2):291-300.